

PCT

REQUEST

The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty.

For receiving Office use only

International Application No.

International Filing Date

Name of receiving Office and "PCT International Application"

Applicant's or agent's file reference
(if desired) (12 characters maximum) 2001/13 PCT

Box No. I TITLE OF INVENTION

COMBINATION AIR SHIELD AND TENSION GATE APPARATUS AND OPERATING PROCESS

Box No. II APPLICANT

This person is also inventor

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

ARTEVA TECHNOLOGIES S.a.r.l.

Talstrasse 80
8001 Zurich, CH

Telephone No.
011 49 69 80 66 5441

Faxsimile No.
011 49 69 80 66 5741

Teleprinter No.

Applicant's registration No. with the Office

State (that is, country) of nationality:
LU

State (that is, country) of residence:
CH

This person is applicant for the purposes of: all designated States all designated States except the United States of America the United States of America only the States indicated in the Supplemental Box

Box No. III FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S)

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

DeBenedictis, Mach A.
184 Longboat Road
Mooresville, North Carolina 28117-8202
US

This person is:

- applicant only
 applicant and inventor
 inventor only (If this check-box is marked, do not fill in below.)

Applicant's registration No. with the Office

State (that is, country) of nationality:
US

State (that is, country) of residence:
US

This person is applicant for the purposes of: all designated States all designated States except the United States of America the United States of America only the States indicated in the Supplemental Box

Further applicants and/or (further) inventors are indicated on a continuation sheet.

Box No. IV AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCE

The person identified below is hereby/has been appointed to act on behalf of the applicant(s) before the competent International Authorities as: agent common representative

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)

CLEMENTS, Gregory N., and DOUGHERTY, Ralph H.
DOUGHERTY & CLEMENTS LLP
6230 Fairview Road, Suite 400
Charlotte, North Carolina 28210
US

Telephone No.
704-366-6642

Faxsimile No.
704-366-9744

Teleprinter No.

Agent's registration No. with the Office
30,713 // 25,851

Address for correspondence: Mark this check-box where no agent or common representative is/has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent.

Box No. V DESIGNATION OF STATES*Mark the applicable check-boxes below; at least one must be marked.*

The following designations are hereby made under Rule 4.9(a):

Regional Patent

- AP ARIPO Patent:** GH Ghana, GM Gambia, KE Kenya, LS Lesotho, MW Malawi, MZ Mozambique, SD Sudan, SL Sierra Leone, SZ Swaziland, TZ United Republic of Tanzania, UG Uganda, ZW Zimbabwe, and any other State which is a Contracting State of the Harare Protocol and of the PCT
- EA Eurasian Patent:** AM Armenia, AZ Azerbaijan, BY Belarus, KG Kyrgyzstan, KZ Kazakhstan, MD Republic of Moldova, RU Russian Federation, TJ Tajikistan, TM Turkmenistan, and any other State which is a Contracting State of the Eurasian Patent Convention and of the PCT
- EP European Patent:** AT Austria, BE Belgium, CH & LI Switzerland and Liechtenstein, CY Cyprus, DE Germany, DK Denmark, ES Spain, FI Finland, FR France, GB United Kingdom, GR Greece, IE Ireland, IT Italy, LU Luxembourg, MC Monaco, NL Netherlands, PT Portugal, SE Sweden, TR Turkey, and any other State which is a Contracting State of the European Patent Convention and of the PCT
- OA OAPI Patent:** BF Burkina Faso, BJ Benin, CF Central African Republic, CG Congo, CI Côte d'Ivoire, CM Cameroon, GA Gabon, GN Guinea, GW Guinea-Bissau, ML Mali, MR Mauritania, NE Niger, SN Senegal, TD Chad, TG Togo, and any other State which is a member State of OAPI and a Contracting State of the PCT (*if other kind of protection or treatment desired, specify on dotted line*)

National Patent (*if other kind of protection or treatment desired, specify on dotted line*):

- | | | |
|---|--|--|
| <input checked="" type="checkbox"/> AE United Arab Emirates | <input checked="" type="checkbox"/> GH Ghana | <input checked="" type="checkbox"/> MX Mexico |
| <input checked="" type="checkbox"/> AG Antigua and Barbuda | <input checked="" type="checkbox"/> GM Gambia | <input checked="" type="checkbox"/> MZ Mozambique |
| <input checked="" type="checkbox"/> AL Albania | <input checked="" type="checkbox"/> HR Croatia | <input checked="" type="checkbox"/> NO Norway |
| <input checked="" type="checkbox"/> AM Armenia | <input checked="" type="checkbox"/> HU Hungary | <input checked="" type="checkbox"/> NZ New Zealand |
| <input checked="" type="checkbox"/> AT Austria | <input checked="" type="checkbox"/> ID Indonesia | <input checked="" type="checkbox"/> PL Poland |
| <input checked="" type="checkbox"/> AU Australia | <input checked="" type="checkbox"/> IL Israel | <input checked="" type="checkbox"/> PT Portugal |
| <input checked="" type="checkbox"/> AZ Azerbaijan | <input checked="" type="checkbox"/> IN India | <input checked="" type="checkbox"/> RO Romania |
| <input checked="" type="checkbox"/> BA Bosnia and Herzegovina | <input checked="" type="checkbox"/> IS Iceland | <input checked="" type="checkbox"/> RU Russian Federation |
| <input checked="" type="checkbox"/> BB Barbados | <input checked="" type="checkbox"/> JP Japan | |
| <input checked="" type="checkbox"/> BG Bulgaria | <input checked="" type="checkbox"/> KE Kenya | <input checked="" type="checkbox"/> SD Sudan |
| <input checked="" type="checkbox"/> BR Brazil | <input checked="" type="checkbox"/> KG Kyrgyzstan | <input checked="" type="checkbox"/> SE Sweden |
| <input checked="" type="checkbox"/> BY Belarus | <input checked="" type="checkbox"/> KP Democratic People's Republic of Korea | <input checked="" type="checkbox"/> SG Singapore |
| <input checked="" type="checkbox"/> BZ Belize | | <input checked="" type="checkbox"/> SI Slovenia |
| <input checked="" type="checkbox"/> CA Canada | <input checked="" type="checkbox"/> KR Republic of Korea | <input checked="" type="checkbox"/> SK Slovakia |
| <input checked="" type="checkbox"/> CH & LI Switzerland and Liechtenstein | <input checked="" type="checkbox"/> KZ Kazakhstan | <input checked="" type="checkbox"/> SL Sierra Leone |
| <input checked="" type="checkbox"/> CN China | <input checked="" type="checkbox"/> LC Saint Lucia | <input checked="" type="checkbox"/> TJ Tajikistan |
| <input checked="" type="checkbox"/> CO Colombia | <input checked="" type="checkbox"/> LK Sri Lanka | <input checked="" type="checkbox"/> TM Turkmenistan |
| <input checked="" type="checkbox"/> CR Costa Rica | <input checked="" type="checkbox"/> LR Liberia | <input checked="" type="checkbox"/> TR Turkey |
| <input checked="" type="checkbox"/> CU Cuba | <input checked="" type="checkbox"/> LS Lesotho | <input checked="" type="checkbox"/> TT Trinidad and Tobago |
| <input checked="" type="checkbox"/> CZ Czech Republic | <input checked="" type="checkbox"/> LT Lithuania | |
| <input checked="" type="checkbox"/> DE Germany | <input checked="" type="checkbox"/> LU Luxembourg | <input checked="" type="checkbox"/> TZ United Republic of Tanzania |
| <input checked="" type="checkbox"/> DK Denmark | <input checked="" type="checkbox"/> LV Latvia | <input checked="" type="checkbox"/> UA Ukraine |
| <input checked="" type="checkbox"/> DM Dominica | <input checked="" type="checkbox"/> MA Morocco | <input checked="" type="checkbox"/> UG Uganda |
| <input checked="" type="checkbox"/> DZ Algeria | <input checked="" type="checkbox"/> MD Republic of Moldova | <input checked="" type="checkbox"/> US United States of America |
| <input checked="" type="checkbox"/> EC Ecuador | | |
| <input checked="" type="checkbox"/> EE Estonia | <input checked="" type="checkbox"/> MG Madagascar | <input checked="" type="checkbox"/> UZ Uzbekistan |
| <input checked="" type="checkbox"/> ES Spain | <input checked="" type="checkbox"/> MK The former Yugoslav Republic of Macedonia | <input checked="" type="checkbox"/> VN Viet Nam |
| <input checked="" type="checkbox"/> FI Finland | <input checked="" type="checkbox"/> MN Mongolia | <input checked="" type="checkbox"/> YU Yugoslavia |
| <input checked="" type="checkbox"/> GB United Kingdom | <input checked="" type="checkbox"/> MW Malawi | <input checked="" type="checkbox"/> ZA South Africa |
| <input checked="" type="checkbox"/> GD Grenada | | |
| <input checked="" type="checkbox"/> GE Georgia | | <input checked="" type="checkbox"/> ZW Zimbabwe |

Check-boxes below reserved for designating States which have become party to the PCT after issuance of this sheet:

- PH Philippines
- OM Oman
- TN Tunisia
- GO Equitorial Guines
- ZM Zambia
-

Precautionary Designation Statement: In addition to the designations made above, the applicant also makes under Rule 4.9(b) all other designations which would be permitted under the PCT except any designation(s) indicated in the Supplemental Box as being excluded from the scope of this statement. The applicant declares that those additional designations are subject to confirmation and that any designation which is not confirmed before the expiration of 15 months from the priority date is to be regarded as withdrawn by the applicant at the expiration of that time limit. (*Confirmation (including fees) must reach the receiving Office within the 15-month time limit.*)

Box No. VI PRIORITY CLAIM

The priority of the following earlier application(s) is hereby claimed:

Filing date of earlier application (day/month/year)	Number of earlier application	Where earlier application is:		
		national application: country	regional application:*	international application: receiving Office
item (1)				
item (2)				
item (3)				
item (4)				
item (5)				

Further priority claims are indicated in the Supplemental Box.

The receiving Office is requested to prepare and transmit to the International Bureau a certified copy of the earlier application(s) (*only if the earlier application was filed with the Office which for the purposes of this international application is the receiving Office*) identified above as:

all items item (1) item (2) item (3) item (4) item (5) other, see
Supplemental Box

* Where the earlier application is an ARIPO application, indicate at least one country party to the Paris Convention for the Protection of Industrial Property or one Member of the World Trade Organization for which that earlier application was filed (Rule 4.10(b)(ii)):

Box No. VII INTERNATIONAL SEARCHING AUTHORITY

Choice of International Searching Authority (ISA) (if two or more International Searching Authorities are competent to carry out the international search, indicate the Authority chosen; the two-letter code may be used):

ISA / US

Request to use results of earlier search; reference to that search (if an earlier search has been carried out by or requested from the International Searching Authority).

Date (day/month/year) Number Country (or regional Office)

Box No. VIII DECLARATIONS

The following declarations are contained in Boxes Nos. VIII (i) to (v) (mark the applicable check-boxes below and indicate in the right column the number of each type of declaration):

Number of declarations

- Box No. VIII (i) Declaration as to the identity of the inventor

Box No. VIII (ii) Declaration as to the applicant's entitlement, as at the international filing date, to apply for and be granted a patent

Box No. VIII (iii) Declaration as to the applicant's entitlement, as at the international filing date, to claim the priority of the earlier application

Box No. VIII (iv) Declaration of inventorship (only for the purposes of the designation of the United States of America)

Box No. VIII (v) Declaration as to non-prejudicial disclosures or exceptions to lack of novelty

Box No. IX CHECK LIST; LANGUAGE OF FILING

This international application contains:		
(a) the following number of sheets in paper form:		
request (including declaration sheets) : 4	This international application is accompanied by the following item(s) (mark the applicable check-boxes below and indicate in right column the number of each item):	
description (excluding sequence listing part) : 12	1. <input checked="" type="checkbox"/> fee calculation sheet : 1	
claims : 3	2. <input checked="" type="checkbox"/> original separate power of attorney : 2	
abstract : 1	3. <input type="checkbox"/> original general power of attorney :	
drawings : 3	4. <input type="checkbox"/> copy of general power of attorney; reference number, if any:	
Sub-total number of sheets : 23	5. <input type="checkbox"/> statement explaining lack of signature :	
sequence listing part of description (actual number of sheets if filed in paper form, whether or not also filed in computer readable form; see (b) below) : 0	6. <input type="checkbox"/> priority document(s) identified in Box No. VI as item(s):	
Total number of sheets : 23	7. <input type="checkbox"/> translation of international application into (language):	
(b) sequence listing part of description filed in computer readable form	8. <input type="checkbox"/> separate indications concerning deposited microorganism or other biological material :	
(i) <input type="checkbox"/> only (under Section 801(a)(i))	9. <input type="checkbox"/> sequence listing in computer readable form (indicate also type and number of carriers (diskette, CD-ROM, CD-R or other))	
(ii) <input type="checkbox"/> in addition to being filed in paper form (under Section 801(a)(ii))	(i) <input type="checkbox"/> copy submitted for the purposes of international search under Rule 13ter only (and not as part of the international application) :	
Type and number of carriers (diskette, CD-ROM, CD-R or other) on which the sequence listing part is contained (additional copies to be indicated under item 9(ii), in right column):	(ii) <input type="checkbox"/> (only where check-box (b)(i) or (b)(ii) is marked in left column) additional copies including, where applicable, the copy for the purposes of international search under Rule 13ter :	
.....	(iii) <input type="checkbox"/> together with relevant statement as to the identity of the copy or copies with the sequence listing part mentioned in left column	
Figure of the drawings which should accompany the abstract: 1	10. <input checked="" type="checkbox"/> other (specify): G. Scantlebury Statement : 2	
Language of filing of the international application: English		

Box No. X SIGNATURE OF APPLICANT, AGENT OR COMMON REPRESENTATIVE

Next to each signature, indicate the name of the person signing and the capacity in which the person signs (if such capacity is not obvious from reading the request).

Gregory N. Clements
Agent/Attorney

For receiving Office use only

1. Date of actual receipt of the purported international application:	2. Drawings:	
3. Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application:	<input type="checkbox"/> received: <input type="checkbox"/> not received:	
4. Date of timely receipt of the required corrections under PCT Article 11(2):		
5. International Searching Authority (if two or more are competent): ISA /	6. <input type="checkbox"/> Transmittal of search copy delayed until search fee is paid	

For International Bureau use only

Date of receipt of the record copy by the International Bureau:

This sheet is not part of and does not count as a sheet of the international application.

PCT

FEE CALCULATION SHEET Annex to the Request

For receiving Office use only

International Application No.

Date stamp of the receiving Office

Applicant's or agent's file reference 2001/13 PCT

Applicant

ARTEVA TECHNOLOGIES S.a.r.l., et al.

CALCULATION OF PRESCRIBED FEES

1. TRANSMITTAL FEE 240.00 T
2. SEARCH FEE 700.00 S

International search to be carried out by US

(If two or more International Searching Authorities are competent to carry out the international search, indicate the name of the Authority which is chosen to carry out the international search.)

3. INTERNATIONAL FEE

Basic Fee

Where item (b) of Box No. IX applies, enter Sub-total number of sheets } 23
Where item (b) of Box No. IX does not apply, enter Total number of sheets }

b1 first 30 sheets 407.00 b1

b2 0 x 9.00 = 0 b2
number of sheets
in excess of 30

b3 additional component (only if sequence listing part of description
is filed in computer readable form under Section 801(a)(i), or
both in that form and on paper, under Section 801(a)(ii)):

400 x 0 = 0 b3
fee per sheet

Add amounts entered at b1, b2 and b3 and enter total at B 407.00 B

Designation Fees

The international application contains 94 designations.

5 x 88.00 = 440.00 D
number of designation fees payable (maximum 6) amount of designation fee

Add amounts entered at B and D and enter total at I 847.00 I

(Applicants from certain States are entitled to a reduction of 75% of the international fee. Where the applicant is (or all applicants are) so entitled, the total to be entered at I is 25% of the sum of the amounts entered at B and D.)

4. FEE FOR PRIORITY DOCUMENT (if applicable) 0 P

5. TOTAL FEES PAYABLE 1787.00

Add amounts entered at T, S, I and P, and enter total in the TOTAL box

TOTAL

The designation fees are not paid at this time.

MODE OF PAYMENT

authorization to charge deposit account (see below)

postal money order

cash

coupons

Credit Card
Payment Form

cheque

bank draft

revenue stamps

other (specify):

AUTHORIZATION TO CHARGE (OR CREDIT) DEPOSIT ACCOUNT

(This mode of payment may not be available at all receiving Offices)

Authorization to charge the total fees indicated above.

Receiving Office: RO/ US

(This check-box may be marked only if the conditions for deposit accounts of the receiving Office so permit) Authorization to charge any deficiency or credit any overpayment in the total fees indicated above.

Deposit Account No.: 04-1448

Authorization to charge the fee for priority document.

Date: 3 January 2002

Name: Gregory N. Clements

Signature: *Gregory N. Clements*

PCT

POWER OF ATTORNEY (for an international application filed under the Patent Cooperation Treaty) (PCT Rule 90.4)

The undersigned applicant(s) (*Names should be indicated as they appear in the request*):

ARTEVA TECHNOLOGIES S.A.R.L.
Talstrasse 80
8001, Zurich CH

hereby appoints (appoint) the following person as: agent common representative

Name and address

(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)

CLEMENTS, Gregory N., and DOUGHERTY, Ralph H.
DOUGHERTY & CLEMENTS LLP
6230 Fairview Road, Suite 400
Charlotte, North Carolina 28210 US

to represent the undersigned before

- all the competent International Authorities
 the International Searching Authority only
 the International Preliminary Examining Authority only

in connection with the international application identified below:

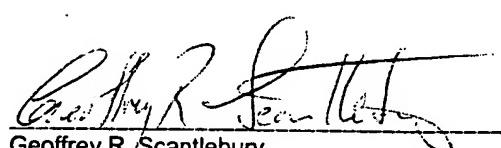
Title of the invention: COMBINATION AIR SHIELD AND TENSION GATE APPARATUS AND OPERATING PROCESS

Applicant's or agent's file reference: 2000/13 PCT

International application number (if already available):

filed with the following Office US as receiving Office
and to make or receive payments on behalf of the undersigned.

Signature of the applicant(s) (*where there are several applicants, each of them must sign; next to each signature, indicate the name of the person signing and the capacity in which the person signs, if such capacity is not obvious from reading the request or this power*):



Geoffrey R. Scantlebury
Director of Technology

Date: Dec 13 2001

PATENT COOPERATION TREATY

International Application No.:

International Filing Date:

Agent's File Reference: Docket 2001/13 PCT

Applicant: Arteva Technologies S.à.r.l., et al.

Title: COMBINATION AIR SHIELD AND TENSION
GATE APPARATUS AND OPERATING PROCESS

Charlotte, North Carolina
December 13, 2001

Commissioner of Patents and Trademarks
Box PCT
Washington, D.C., 20231

Dear Sir:

The undersigned (whose title is supplied below) is empowered to sign the Power of Attorney on behalf of the applicant Arteva Technologies S.à.r.l., of Talstrasse 80, 8001 Zurich, Switzerland.

Respectfully submitted,



Geoffrey R. Scantlebury
Director of Technology

Dec. 13, 2001
Date

PCT

POWER OF ATTORNEY (for an international application filed under the Patent Cooperation Treaty) (PCT Rule 90.4)

The undersigned applicant(s) (*Names should be indicated as they appear in the request*):

DeBenedictis, Mach A.
184 Longboat Road
Mooresville, North Carolina 28117-8202
US

hereby appoints (appoint) the following person as: agent common representative

Name and address

(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)

CLEMENTS, Gregory N., and DOUGHERTY, Ralph H.
DOUGHERTY & CLEMENTS LLP
6230 Fairview Road, Suite 400
Charlotte, North Carolina 28210 US

to represent the undersigned before

- all the competent International Authorities
 the International Searching Authority only
 the International Preliminary Examining Authority only

in connection with the international application identified below:

Title of the invention: COMBINATION AIR SHIELD AND TENSION GATE APPARATUS AND OPERATING PROCESS

Applicant's or agent's file reference: 2001/13 PCT

International application number (if already available):

filed with the following Office US as receiving Office
and to make or receive payments on behalf of the undersigned.

Signature of the applicant(s) (*where there are several applicants, each of them must sign; next to each signature, indicate the name of the person signing and the capacity in which the person signs, if such capacity is not obvious from reading the request or this power*):



Mach A. DeBenedictis
Applicant/Inventor

Date: 17-DECEMBER-2001